

**Complementary and Alternative Medicine:  
A Comparison between South East Asia and North America**

**An Honors Thesis (HONR 499)**

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### **Abstract**

Complementary and Alternative Medicine has been a part of every culture before modern medicine became available. Despite the American culture of modern medicine and the advancements towards medical technology, complementary and alternative medicine is left in the dust more often than not. Rarely do people in North America consider an alternative route to cure a disease today. The analysis of many medical journals as well as personal experience and immersion into the South East Asian culture will be referenced throughout this paper. Not only is complementary and alternative medicine underestimated, but the American culture of modern medicine is developing without referring to what it originated from.

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### **Process Analysis Statement**

Complementary and alternative medicine is an important specialty in health care. It is vital that nurses and nursing students learn and understand interactions and benefits of this type of medicine to provide safe patient care. Through my experience and research I will reflect on my knowledge and skills up to this point as a nursing student. Through this project I hope to obtain personal growth in knowledge about complementary medicine and how it can benefit a person's daily living activities. I will research and back up my knowledge from what I have learned abroad and reflect on what I observed to better improve my quality of care for my future patients. I studied abroad in Malaysia, Singapore, Australia, and Thailand. I was able to observe the healthcare practices that were used in these Southeast Asian countries and talk to healthcare professionals about their practices. When I returned to Indiana, I started researching our medical practices and what we did in particular situations. I used nursing textbooks as well as medical journals to compare and contrast medical practices in Southeast Asia and North America.

I learned so much about my beliefs in modern medicine in North America throughout my research and study abroad experience. I have always thought that North America had the best medical schools as well as top of the line healthcare, but throughout the research that was gathered, I found that many other countries were actually surpassing North America in their medical practices as well as including all medical options to their patients.

I hope that this thesis project will help shape and guide healthcare practices and offer alternatives to patients that can be used in combination with modern medicine or alone when other options have been exhausted. I anticipate that this thesis reaches all healthcare workers and shines light on all forms of medicine, complementary and modern.

Complementary and alternative medicine can be used alongside or in place of modern medicine. It has been around long before the advances of modern and contemporary practices, and are still preferred as a more natural option in healthcare today. The American culture of modern medicine leans towards the uses of medical technology, and advancement and production of new medications to treat illnesses. The Asian culture still practices modern options, but also implement and encourage the use of traditional practices of complementary and alternative therapies.

Complementary and alternative medicine includes a wide array of therapies such as acupuncture, acupressure, aromatherapy, therapeutic touch, biofeedback, massage therapy, meditation, yoga, herbal therapies, and homeopathic remedies (Ladewig, London, Davidson, 2017). A complementary therapy may be defined as any procedure or product that is used as an adjunct to conventional medical treatment. The term integrative health describes the use of complementary therapies within mainstream health care (Ladewig et al., 2017). In the United States, when therapies such as acupressure, acupuncture, and massage therapy are now often used together with conventional medical care, and many health insurance plans cover at least a portion of the cost of such therapies. On the contrary, in Malaysia, since the cost of these alternative options are much cheaper than modern medicine, insurance tends to not cover that cost. Alternative therapy is usually considered a substance or procedure that is used in place of conventional medicine. Thus, alternative therapies are not usually available in conventional clinics and hospitals, and their costs are not typically covered under most health insurance policies (Ladewig et al., 2017).

There are many benefits that come from complementary and alternative approaches to healthcare. However, there are also risks that are associated with seeking this type of care and

treatment. Many complementary and alternative therapies emphasize prevention and wellness, and place a higher value on holistic healing than on physical cure. In addition, many are noninvasive, have few side effects, and are more affordable and available than conventional therapies. In contrast, many of these remedies have associated risks that must be considered thoughtfully before a decision is made to use them. These risks include lack of standardization, lack of regulation and research substantiating safety and effectiveness, inadequate training and certification of some healers, and financial and health risks of unproven methods (Ladewig et al., 2017).

Complementary and alternative medicine is used for patients with blood disorders, women's health, bleeding precaution, insomnia, and pain management. It has also been proven effective in reducing anxiety and providing a more positive mental health status.

### **Bleeding Precaution**

Bleeding precautions are taken with every patient who arrives to the hospital. To ensure that each and every individual receives the quality care that they deserve, they need to be honest with the healthcare providers as well as thoroughly taught how to avoid complication and medication interactions. Patients who have had a previous stroke or certain heart arrhythmias, are placed on medications to help their blood not form clots so that they do not have another stroke or fatal pulmonary embolism (clot in the lung). These medications such as warfarin, heparin, or aspirin. Prior to any treatment an initial assessment is completed by a nurse. It is important for the nurse to ask what medications they take as well as what their diet, supplements, and over the counter medications they use. Asking about each of these things ensures that the patient will be given the best quality of care.

Many people don't consider garlic in their food and drinking green tea will affect how long their blood may take to clot, however it is an important consideration if the person has a blood clotting disorder or have had a previous health scare. The following herbs and dietary supplements may affect blood clotting: bilberry, black cohosh, chamomile, chondroitin sulfate, DHEA, feverfew, garlic, ginkgo biloba, ginger, ginseng, goldenseal, grapeseed extract, green tea, horse chestnut seed extract, melatonin, niacin, omega-3-fatty acids, psyllium, red yeast, rice extract, saw palmetto, soy, turmeric (Lewis et al., 2017).

Nursing school teaches students that the main interacting food to clotting time is vitamin K. If a person is taking warfarin medication to prevent a stroke, the antidote is vitamin K. This can be especially dangerous, and the medication dose may need adjusted if the patient eats lots of green leafy vegetables. Warfarin also can take up to a week for it to reach its full anticoagulant effect. Western society has made convenience and time a big factor today. Individuals want instant results and service. If a patient is not warned and taught about their medications correctly, they may seek alternative treatment options such as ginkgo herbs. This could be deadly if the clotting range is not within therapeutic level. A simple paper cut could put the patient at risk for losing too much blood.

Nursing implications include informing patients that taking herbs or dietary supplements may increase their risk of bleeding; to caution patients with bleeding disorders about the use of these herbs and dietary supplements. Advise them that they should consult with their health care provider before using these substances (Lewis et al., 2017).

## **Women's Health**

Women's health is especially important when trying to conceive, carry and deliver a child.

Massage therapy, therapeutic touch, hormone replacement, and Traditional Chinese Medicine are used alongside or in place of conventional medicine to help women. It is estimated that 37% of pregnant women and 28% of postpartum women use alternative therapies during the perinatal period.

Massage therapy involves the manipulation of the soft tissues of the body to reduce stress and tension, increase circulation, diminish pain, and promote a sense of well-being. Most forms use techniques such as pressing, kneading gliding, circular motion, tapping, and vibrational strokes. Certain massage therapists specialize in massage for women during pregnancy. Massage is often helpful as women adapt to the discomforts of their changing bodies. In addition, certified nurse-midwives often use perineal massage before labor to stretch the muscles of the perineum around the vaginal opening and thereby prevent tearing of the tissues during childbirth. During labor, massage of the back and buttocks by the nurse, labor coach, or doula can help the woman relax and may help decrease her discomfort. Infant massage is also growing in popularity in the United States (Ladewig et al., 2017). At Ball Memorial Hospital in the Neonatal Intensive Care Unit, massage therapy is used to help babies detox from opioid withdrawal and other complications with premature birth.

In addition to the allopathic methods, a variety of more natural, noninvasive methods to initiate contractions may be used. These methods include sexual intercourse; nipple or breast stimulation, the use of herbs or homeopathic agents; castor oil (especially for primigravida women); enemas; acupuncture and acupressure; chiropractic manipulation; and mechanical dilation of the cervix with transcervical balloon catheters. Female orgasm stimulates

contractions, and male ejaculate is a rich source of prostaglandins. Penetrations during intercourse can also stimulate the lower uterine segment and cause uterine contractions. In addition, breast and nipple stimulation produces endogenous oxytocin, which in turn stimulates the uterus to contract (Ladewig et al., 2017).

Therapeutic touch is a complementary therapy meant to be used with conventional medical care. It was developed in the early 1970s by Dr. Delores Krieger, a nursing professor at New York University, and Dora Kunz, a clairvoyant healer. Therapeutic touch is grounded in the belief that people are a system of energy with a self-healing potential. The therapeutic touch practitioner, often a nurse, can unite his or her energy field with that of the recipient's, directing it in a specific way to promote well-being and healing. Proponents of therapeutic touch believe that a strong desire to help the recipient is essential, as is a conscious use of self to act as a link between the universal life energy and the other person. Impressive anecdotal evidence and many small studies suggest that therapeutic touch is effective in a variety of conditions; however, large randomized trials are needed to establish effectiveness. Like many other conventional and complementary therapies, therapeutic touch should be applied cautiously to pregnant women and newborns by trained professionals (Ladewig et al., 2017).

For women who do not wish to take menopausal hormone therapy or who have medical contraindications to it, a variety of approaches have been proposed as complementary or alternative treatment or preventative measures for the discomforts of the perimenopausal and postmenopausal years. Research suggests that mind-body practices such as yoga, t'ai chi, and meditation are helpful in reducing many of the common symptoms of menopause for some women; acupuncture may also help reduce the severity of symptoms. Ginseng may help relieve



mood symptoms and sleep disturbances but has not been effective in treating hot flashes (Ladewig et al., 2017).

Phytoestrogens, plant substances with estrogen-like properties, have been studied extensively to determine their effectiveness in relieving menopausal symptoms. The two main classes of phytoestrogens are isoflavones such as soy, and lignans, found in flaxseed, legumes, whole grains, fruits and vegetables. The use of phytoestrogens is associated with a decrease in hot flash frequency but not in other symptoms of menopause when compared to a placebo. DHEA is a dietary supplement that is changed in the body to the hormones of estrogen and testosterone. It has been suggested that DHEA might have anti-aging effects and might help in improving decreased sexual arousal, mood, cognition, and bone density (Ladewig et al., 2017).

Weight-bearing exercises such as walking, jogging, tennis, and low-impact aerobics help increase bone mass and decrease the risk of osteoporosis. Exercise also improves cholesterol profiles and contributes to overall health. Pelvic floor, or Kegel exercises, can help maintain vaginal muscle tone and increase blood circulation to the perineal area. Stress management and relaxation techniques such as biofeedback, meditation, yoga, visualization, and massage may provide a sense of well-being (Ladewig et al., 2017).

Couples experiencing infertility may seek out alternative treatments. Some common complementary therapies include pelvic physical therapy, hypnosis, yoga, homeopathy, spiritual healing, acupuncture, and herbal therapy. Acupuncture is a therapy used in traditional Chinese medicine (TCM) and involves inserting sterile needles into specific points on the body to control the flow of chi, or life energy. Acupuncture treatment focuses on balancing the flow of chi in the kidneys and adrenal glands. It has been shown to be effective by inhibiting uterine motility during embryo transfer and improving the endometrial environment for embryo implantation.

Several studies have shown that acupuncture can increase the clinical pregnancy rate and live birth rate among women undergoing in vitro fertilization. Herbs frequently recommended to treat infertility include ginseng and astragalus. Herbalists cite the healing and hormone-balancing effect of these herbs. Ginseng has historically been used in TCM to enhance male virility and fertility.

The nurse should be alert for signs that the couple is pursuing complementary therapies. A sensitive, nonjudgmental approach will go a long way toward comforting a couple and assuring them that many complementary therapies are helpful and not harmful. The nurse should inquire about the use of complementary therapies as part of routine antepartum assessment. Nurses working with pregnant women and childbearing families need to develop a general understanding of the more commonly used therapies to be able to answer basic questions and to provide resources as needed. Many healthcare practitioners and their clients desire a more natural approach and methods when possible. It is important that the provider have knowledge and education in these options prior to recommending them to women. It is important for nursing students, nurses, and clients to be aware of all aspect of pregnancy care (Ladewig et al., 2017).

It is important for the pregnant woman to understand that herbs are considered to be dietary supplements and are not regulated as prescription or over-the-counter drugs are through the FDA. In general, it is best to advise pregnant women not to ingest any herbs, except ginger, during the first trimester of pregnancy. Very few clinical trials exist that have examined the safety of supplements and herbs during pregnancy. Many herbs, such as black haw, chamomile, dandelion, ginger, nettle leaf, and red raspberry are considered safe for use in pregnancy. Pregnant women should be advised to consult reputable sources such as the National Center for

Complementary and Integrative Health website about these therapies and should also speak with their healthcare providers to determine the safety of such products or therapies (Ladewig et al., 2017).

### **Insomnia**

There are many complementary and alternative therapies that are used as sleep aids. Melatonin is a hormone that is naturally made in a person's body. It is produced by the pineal gland which is located in the center of the brain. Melatonin has been proven effective for improving sleep disturbance associated with jet lag. It also helps people who work night shift sleep during the day. The majority of scientific evidence suggests that melatonin may decrease the time it takes to fall asleep (sleep latency). Some nursing implications are that melatonin is regarded safe in recommended doses for short-term use; to avoid giving melatonin to patients using warfarin or central nervous system depressants; and that it may cause a drop in blood pressure, so caution is advised if the patient is already taking a medication that reduces their blood pressure (Lewis et al., 2017).

Valerian is an herb that has been used for many years as a sleep aid and to relieve anxiety. Although it is safe, it is not effective in treating insomnia (Lewis et al., 2017).

Additional sleep aids include white noise, or relaxation techniques such as deep breathing and calm music.

### **Pain management**

Opioid addiction has caught the public's attention over the last few years. Opioids have been used for a long time to alleviate pain for individuals nationwide. In 2011, the institute of

Medicine released a landmark estimate that 50 million Americans, just over 20 percent of the adult population, have chronic pain (pain for over six months) (Anson, 2018).

Opiates are no longer considered the best strategy for the long-term management of chronic pain. Yet, physicians have made many patients dependent on them, and these patients still request treatment. Complementary and alternative medicine (CAM) therapies have been shown to be effective, but are not widely available and are not often covered by insurance or available to the medically underserved (Mehl-Madrona, Mainguy, Plummer, 2016).

Many doctors in the United States do not consider who their patient population is prior to writing a prescription. Many individuals who are within childbearing age are prescribed opioid medications to relieve pain for dental procedures (wisdom tooth removal), post-surgical operation (torn ACL), work related injury (back pain), cancer and arthritis. After their prescription has run out, they find that they are addicted or dependent on the medication, yet have no refills. They turn to recreational drug use, or even become drug seekers in hospital emergency departments. With the negative association to rehabilitation, many individuals do not seek help. Some individuals may become dependent on opioids, and conceive a child. This is related to even more complications. A healthy athlete could turn into an addicted drug abuser just because they were given a recommended treatment by their doctor.

Physicians should consider the use of non-pharmaceutical pain relief options prior to prescribing opioids to their patients. Age and other demographics of their patients should also be taken into consideration prior to handing them a prescription for pain relief. Some nondrug therapies that should be discussed include hot and cold applications, acupuncture and acupressure therapy if appropriate, and relaxation techniques such as yoga and meditation.

Distraction techniques like listening to music and watching television may also assist an individual in forms of pain relief.

### **Personal Experience**

The summer of 2017 will be an unforgettable summer. I had the incredible opportunity to travel to Malaysia, Singapore, Australia, and Thailand through a Ball State Study Abroad Program. I witnessed what healthcare was like in South East Asia, and how they have implemented modern medicine into the traditional practices. I saw private, traditional, and modern hospitals. I learned how traditional practices of acupuncture and herbal supplements were implemented alongside as well as in replacement of modern practices.

In Malaysia I was able to witness an acupuncturist feel a student's wrist and hand, noticed it was tense and asked a few questions. She asked whether the student was stressed and the student replied that she was. She then asked if the student was having cramps recently and if she was experiencing that pain now. The student admitted that she was having lower back pain and cramps periodically. What the doctor did next was amazing. She took out a set of needles and placed three of them on the student's hand and wrist on specific pressure points and nerves. The student immediately reported a relief of pain in her lower back. The doctor said that in order for the full effect of the acupuncture to take place it would take 8-10 minutes. I was amazed that only palpating a student's wrist and hand, the doctor was able to place pressure on the nerves and relieved the student's pain. There was no pain medication needed and the results were astounding. With years of discipline and dedication, pain can be relieved without the risk of harming an individual and the potential of having the patient become addicted to pain medication. Complementary and alternative medicine works, and it is time that it is used alongside modern medicine to help patients throughout the United States.

The hospital that we visited in Malaysia was Tung Shin Traditional Chinese Hospital. It has been around for 135 years. Both western and traditional medicine is offered, but they are in separate wings. Some of the things that the traditional side specializes in are massages, cupping, and acupuncture. In 1881, Pooi Shing Tung was founded. There are 283 beds in the western wing, 24 hour service for the outpatient unit, 5 operating theaters, and 6 dialysis units. There is a two year training for the nursing academy. There are 180 beds in the other wing, and 60 acupuncture beds. Both types of medicines are used to cure diseases. Traditional Chinese medicine is used alongside modern medicine to cure a variety of separate diseases. Alternative medicine is used after radiotherapy for cancer if the patient wants it. The western medicine compliments the traditional medicine and vice versa. Since traditional medicine is herbs, and all natural, there are less side effects and do not harm the body like modern medicine does. The herbs come from China, because it is important that it is grown in tropical region. Herbal medicine is used to help patients who have hypertension. It is tried for three months, and if it doesn't work, then western medicine is tried.

Questions that were asked at Tung Shin Hospital follows. 1Q) Which type of treatment is in higher demand? 1A) It depends on whether the patient is receiving in-patient or out-patient care along with what the doctor recommends and what condition the patient is in. 2Q) What is the most common ailment for traditional medicine? 2A) The patient seeks western treatment first. If they have a loss of hope they can seek traditional medicine such as acupuncture and herbs. 3Q) Where do the physicians study? 3A) Most physicians come from china. They could have been teachers or professors before. 4Q) What is cupping used for? 4A) Circulation needs to be better or increased. It is mainly used for poor circulation. 5Q) Do people come from other countries to come here? 5A) Yes, surrounding countries people will seek treatment. Chinese

patients will also come here to feel more comfortable. 6Q) What languages are required to work here? 6A) Mandarin (Chinese), English, and Malay are needed. 7Q) Which medication treatment option is more inexpensive? 7A) Traditional medicine is cheaper, but it depends on need of patient to get a cure. 8Q) Is this hospital a non-for-profit? 8A) This hospital depends on public donation. 9Q) Do you cover insured patients? 9A) Yes, it does not cover traditional treatment because it is already inexpensive, but will cover some cost of western medicine. 10Q) How many nurses are on staff? 10A) Not sure, 600 total staff members. 11Q) Do you have preventative measures and do you hold programs to help patients maintain health? 11A) Annual check-ups are done for those who come in. 12Q) How do you pay staff? 12A) payment from patient goes to staff. 13Q) Is health disparity treatment using traditional medicine? 13A) Cerebrovascular (stroke) patients more than anything use acupuncture to stimulate nerve endings. 14Q) What education does a doctor have to have? 14A) A Chinese physician studies a few years in Beijing, China. 15Q) Are there specialists for dietetics? 15A) There are none for traditional medicine. 16Q) Are there midwives? 16A) Yes, for western, but not for the traditional side. 17Q) How many patients come to the traditional hospital? 17A) 1-200 patients a day. 18Q) Where do patients go when they are in labor? 18A) If they are Chinese, they tend to have the child in the comfort of their home, others come to western side. 19Q) Where do mentally ill patients go? 19A) They seek psychological treatment on the western side, herbs will not help. 20Q) Are herbs organic, and who regulates it? 20A) Yes, they are grown under certain conditions in a specific area. Different laws are in place to ensure the right production. 21Q) Is it common for the western side to recommend traditional treatment? 21A) Yes, only if they need more help. 22Q) Does the patient ever refuse western treatment? 22A) No, most prefer the western treatment first. Some stroke patients and minor cancer patients will come to receive

further medical help with traditional help. If they are apprehensive, no trials are done, and it takes longer to work. Some patients get frustrated with the wait and stop taking it. 23Q) Are there other traditional hospitals? 23A) No, this is the only one in Malaysia. 24Q) Are there language interpreters? 24A) No, most doctors do the talking. 25Q) Is there only one herb for certain diseases, or is there a combination used? 25A) There is a combination with herbal tea, and other things to relieve pain. Malaysian Chinese patients are 90% of the total patients. The people who come for traditional medicine listen to their doctor and take the right dose. They are not drugs, so they tend to be more willing.

Complementary and alternative medicine is used throughout the world in combination with modern medicine to relieve pain. Within the United States, alternative options are not presented very often to sick patients. Healthcare workers and those entering the field should understand the importance in advocating for their patient and presenting all valid options for pain relief as well helping them become culturally competent in their care.

The bedside nurse's job is to advocate for the patient as well as teach the patient what will benefit them. This includes giving suggestions to the patient on a safe place to go, to get alternative care that they can add to their healing approach. A nurse should be able to inform them of things that may help them as well as things they should stay away from that may harm them. Different medications and supplements can be beneficial to recovery, but others may be harmful, and preventing a patient from being harmed can be solved by educating them. If a patient asks if there are benefits to complementary healing options and pain relief options, healthcare providers should be able to direct them to method of pain relief such as acupuncture and acupressure that can be used alongside modern medicine.



Traditional treatment options as well as contemporary ones have been proven effective in treating a variety of ailments worldwide. As with every type of treatment and illness prevention, each individual is unique and desire the best care among the healthcare team that they consult. It is important that each and every person who works in the healthcare field should be knowledgeable about all treatment options as well as interaction (good or bad), that will affect the outcome of a patient. To be culturally competent and sensitive, educating oneself should be top priority. Once an individual is educated, they can teach others to ensure excellent patient care.

## References

- Anson, P. (2018, September 13). CDC: 50 Million Americans Have Chronic Pain. Retrieved April 30, 2019, from <https://www.painnewsnetwork.org/stories/2018/9/13/cdc-50-million-americans-have-chronic-pain>
- Ladewig, P. W., London, M. L., & Davidson, M. R. (2017). *Contemporary maternal-newborn nursing care*(9th ed.). Boston, NJ: Pearson.
- Lewis, S.M., Bucher, L., Heitkemper, M. M., Harding, M., Barry, M., Lok, J., . . . Lewis, S.m. (2019). *Medical-surgical nursing: Assessment and management of clinical problems* (10<sup>th</sup> ed.). Milton, Ontario: Elsevier.
- Mehl-Madrona, L., Mainguy, B., & Plummer, J. (2016). Integration of complementary and alternative medicine therapies into primary-care pain management for opiate reduction in a rural setting. *The Journal of Alternative and Complementary Medicine*, 22(8), 621-626. doi:10.1089/acm.2015.0212